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| APPLICATION NO.          | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO |
|--------------------------|-------------|----------------------|-------------------------|-----------------|
| 09/862,384               | 05/22/2001  | Ramin Farjad-Rad     | 2789.2017-000 8682      |                 |
| 7590 03/09/2006          |             |                      | EXAMINER                |                 |
| Sawyer Law Group         |             |                      | ODOM, CURTIS B          |                 |
| P.O.Box<br>Palo Alto, CA | 94303       |                      | ART UNIT                | PAPER NUMBER    |
| Taio Ailo, On 74303      |             |                      | 2634                    |                 |
|                          |             |                      | DATE MAILED: 03/09/2006 |                 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| Supplemental   | Application No.  | Applicant(s)   |  |  |  |  |
|--|--|--|--|--|--|--|
| Office Action Summary  | 09/862,384   | FARJAD-RAD, RAMIN  |  |  |  |  |
| omce Action Summary  | Examiner   | Art Unit   |  |  |  |  |
| TI MANUNO DATE MAN   | Curtis B. Odom   | 2634   |  |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply   | ears on the cover sheet with the c   | orrespondence address  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | i6(a). In no event, however, may a reply be time<br>within the statutory minimum of thirty (30) days<br>ill apply and will expire SIX (6) MONTHS from<br>cause the application to become ABANDONEI | nely filed s will be considered timely. the mailing date of this communication. O (35 U.S.C. § 133). |  |  |  |  |
| Status   |  |  |  |  |  |  |
| 1) Responsive to communication(s) filed on 24 Ja   | nuary 2005.  |  |  |  |  |  |
| 2a) ☐ This action is FINAL. 2b) ☒ This   | ☐ This action is FINAL. 2b) ☒ This action is non-final.  |  |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is   |  |  |  |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  |  |  |  |  |  |  |
| Disposition of Claims  |  |  |  |  |  |  |
| 4)⊠ Claim(s) <u>5-9</u> is/are pending in the application.   |  |  |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.   |  |  |  |  |  |  |
| 5) Claim(s) is/are allowed.  |  |  |  |  |  |  |
| 6)⊠ Claim(s) <u>5 and 6</u> is/are rejected.   |  |  |  |  |  |  |
| 7)⊠ Claim(s) <u>7-9</u> is/are objected to.  |  |  |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or  | election requirement.  |  |  |  |  |  |
| Application Papers   |  |  |  |  |  |  |
| 9) The specification is objected to by the Examiner  | •  |  |  |  |  |  |
| 10)⊠ The drawing(s) filed on <u>24 January 2005</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.   |  |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |  |  |  |  |  |  |
|  | - · ·  |  |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |  |  |  |  |  |  |
| Priority under 35 U.S.C. § 119   |  |  |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  |  |  |  |  |  |  |
| a) ☐ All b) ☐ Some * c) ☐ None of:   |  |  |  |  |  |  |
| 1. Certified copies of the priority documents have been received.  |  |  |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No   |  |  |  |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage  |  |  |  |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).  |  |  |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.   |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Attachmont/c)  |  |  |  |  |  |  |
| Attachment(s)  1) X Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)   |  |  |  |  |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date.   |  |  |  |  |  |  |
| 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)   | 5)  Notice of Informal P 6)  Other:  | atent Application (PTO-152)  |  |  |  |  |
| Paper No(s)/Mail Date  | o, oner  |  |  |  |  |  |

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#### **DETAILED ACTION**

## Claim Objections

1. Claim 9 is objected to because of the following informalities: The word "swatches" is suggested to be changed to "switches". Appropriate correction is required.

## Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 3. Claims 5 and 6 rejected under 35 U.S.C. 102(e) as being anticipated by Grung et al. (U. S. Patent No. 6, 650, 720).

Regarding claim 5, Grung et al. discloses a phase detector (Fig. 3, block 204), comprising:

a sampling clock generator (Fig. 3, block 204, column 3, lines 55-58) which generates a clock at an oversampling rate compared to a data rate of an input sequence;

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a first sampler (Fig. 3, block 204, column 3, lines 58-65) which samples data values (middle samples) of the input sequence;

a second sampler (Fig. 3, block 204, column 3, lines 58-65) which samples edges (edge samples) between the data values; and

a data phase detector (Fig. 3, block 204, column 3, line 58-column 4, lines 8) which determines phase error between data transitions in the input sequence and the sampling clock phases, based on amplitudes (magnitudes) of the sampled edges, the determined phase error being fed into the sampling clock generator to adjust the phase of the sampling clock, wherein the VCO (Fig. 3, block 212) adjusts the phase of the sampling clock (column 3, lines 35-42).

Regarding claim 6, which inherits the limitations of claim 5, Grung et al. discloses the phase error is proportional to an amplitude (magnitude) of a sampled edge (column 3, line 66-column 4, line 8).

### Allowable Subject Matter

4. Claims 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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## Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis B. Odom whose telephone number is 571-272-3046. The examiner can normally be reached on Monday- Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Curtis Odom February 24, 2006

MOHAMMED GHAYOUR SUPERVISORY PATENT EXAMINER

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